Retirement at Age 65, 67 or 70: Social Security Faces An Aging Population.

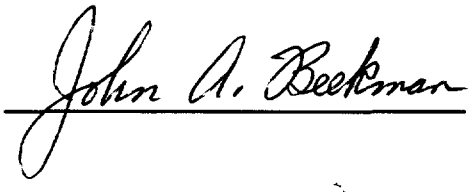
A Senior Honors Thesis

by

Gregory A. Dafler

Thesis Advisor

Dr John A. Beekman



Ball State University
Muncie, Indiana

April 1996

Date of graduation: May 1996

ACKNOWLEDGEMENTS

Thanks to Dr. John Beekman for all his support, advice, and encouragement. I have enjoyed researching and learning under his advisement.

ABSTRACT

This honors thesis is an analysis of the Old-Age and Survivors Insurance portion of Social Security in the United States. A history of past events, problems currently facing the Social Security Administration, and a projection of future events is outlined in this report. It shows how a higher retirement age, set at 67 or 70, will affect an individual's benefits received to taxes paid ratio.

TABLE OF CONTENTS

Introduction.

A lot of people don't have faith in the United States Social Security System to provide benefits when they retire in the future. They are worried that funds won't be available for them years down the road and are aggravated that they have to "pay into the system" now. So, students graduating from college right now may wonder if social security retirement benefits will be available for them when they reach age 67. Currently, the status of the social security trust funds is good, and the size of the retirement and disability funds are growing. However, this trend is not predicted to continue by many experts in the field, and the traditional college student age 18-22 may not receive benefits when he or she attains age 67. According to the Board of Trustees of Social Security and Medicare, the combined OASDI trust funds will be exhausted in 35 years if everything continues on its current course. Changes of some sort must be made to prevent financial exhaustion of the trust funds. Assuming that Congress does not allow Social Security to run itself into the ground, a more appropriate question for students to ask themselves is whether or not they will receive in benefits what is paid to the government in taxes and how future changes may affect them.

History.

Social insurance was a fast growing idea and activity in the late 19th and early 20th centuries. Many industrialized nations began implementing or seriously considered social insurance as a

means of financial security for retired workers. In the United States, serious discussion and product development began at the beginning of the 1900's. It took 35 years before a plan finally went into action. The Social Security Administration was established in the United States by the Social Security Act of 1935. Its primary feature, called Old-Age Insurance(OAI), was retirement benefits for workers who retired at age 65. It didn't take spouses or dependents of workers into account until 1939. It was the amendments of 1939 that transformed OAI into Old-Age and Survivors Insurance(OASI), which is the same program that is currently in effect today. Social insurance began in the United States purely as a pension plan for retirees and for those families whose "breadwinner" had died. Eventually, Congress added disability insurance(DI) in 1956 and Medicare, or hospital insurance(HI) in 1965. Federal disability insurance provides disability income for once covered workers who become completely unable to work. Hospital insurance pays hospital care for those age 65 and over and workers that are disabled. These three insurances are often called OASDHI when regarded as one social insurance.

The financing of this insurance program is through a federal income payroll tax(FICA.) It began in 1935 at just 1% of an employee's payroll, but it has now grown to a 7.65% of an employee's income. This tax is matched by the employer so that the combined dollar amount of OASDHI taxes sent to the federal

government is 15.3% of a company's payroll. Self-employed individuals are charged the same 15.3% tax, but it is only based on 92.35% of that individual's net earnings. The funds of the insurance program are still divided into the three main insurance coverages: OASI, DI, and HI. OASI and DI are usually combined into OASDI and receive 6.2% of the employee tax, while the HI trust fund receives 1.45% of the tax. Tables B.1. and B.2. illustrate the combined employee/employer OASI only tax rate.

Current Status of OASI based on Trustees Report.

The current state of the Old-Age Survivors Insurance Trust Fund is good. In 1994, the OASI Trust Fund earned income near $328.3 billion, paid out $284.1 billion, and gained a net increase of $44.1 billion. The fund finished the 1994 fiscal year with $413.5 billion and is predicted to increase for the next 20 years (11, pg 7). However, according to the Board of Trustees of Social Security and Medicare, this trend is only short term. Under all three financial assumptions by the Board of Trustees(optimistic, intermediate, and pessimistic), the long-range status of Social Security is quite poor.

The major problem that the Social Security Administration faces in the near future is demographics. First, a large number of people that were born in the "baby boomer" decade will be retiring at the same time. Currently, these individuals are the workers who are contributing to the trust funds. Hence, there is a large

inflow of assets into these funds. However, when they retire this will require a large amount of outflow of funds while the inflow from FICA taxes will be substantially smaller. Figure 1 represents an idealistic population distribution that a Social Security program would survive under with few problems. Figure 2 illustrates what is currently facing the U.S. Social Security Administration.

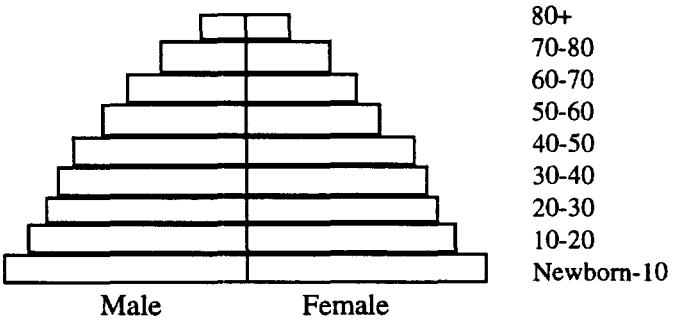


Figure 1.

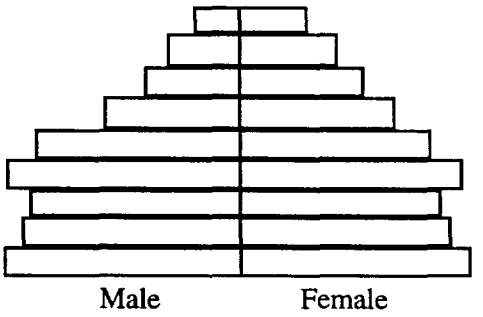


Figure 2.

Under a population like Figure 1, there would be a large base of contributors that would more than offset the benefit payments to retirees. In reality, the U.S. population has a large number of "baby boomers" now between the ages of 40 and 50. This poses no problem today, but as this "bubble" in the distribution reaches the retirement age, assets would be paid out in benefits faster than they're being supplied to the trust funds.

Another demographic problem is the longer life expectancy of many Americans over the past few decades. Many more people are living to retirement age and beyond that for a longer number of years. This, too, is depleting more out of the social security

funds than what was put into them. These two problems coupled together are adding a future strain on Social Security. Not even the net increases of this decade will be large enough to combat this complicated problem. Some experts predict that when these two demographic problems clash(hence, when the baby boomers retire and live longer) that the social security retirement funds will crash and be completely depleted within a small span of time.

Another problem that adds to the Social Security financial strain is that of past benefit payments. The first recipients of retirement benefits received far more in benefits than what was paid in tax contributions. Appendix D illustrates expected benefits received versus tax contributions ratios over the past 35 years. Based on which assumptions are used, retirees have received as much as 8 times their contributions in 1960 and as much as 3 times their contributions in the early 1980's. Naturally, this is not good for the long-range status of the trust funds.

Changes That May Save Social Security.

One of the most recent moves by the Social Security Administration to try to combat this problem was an increase in the Natural Retirement Age(NRA.) Currently, the NRA is age 65 for full benefits and early retirement at age 62 for 80% of the benefit. It will rise gradually during the 21st century to age 66 for those retiring in 2009-2020 and age 67 for those retiring in 2027 and after. Because the minimum retirement age will then remain at 62

in 2027, the benefit will only be 70% of the maximum instead of 80% [5, pg 3]. The argument for an increase in the NRA is that people who retire in the future will still have the same life expectancy(thus, receive benefits for a comparable period of time) after retirement as those who had retired in the past. Table A.1. shows the life expectancy of women and men starting from their age of retirement. The hope is that starting in 2027 this will increase taxes paid per individual by two years while decreasing the number of monthly benefits paid.

More changes are needed in the future to keep Social Security out of financial jeopardy. It is suggested by Robert J. Myers, past Chief Actuary of the Social Security Administration, that the NRA be raised yet again because life expectancies continue to rise. The same arguments that were made for raising the retirement age to 67 could be used to raise it to 70. A change of this sort would affect both taxpaying workers and benefit receiving retirees. Workers would have to wait an extra three years before they can retire to receive benefits, and retirees would have their benefit payments cut short. The effect of another NRA increase on an individual's benefit/tax ratio is illustrated in Appendix E based on a real interest rate of 2%. Another possible change would be to raise the FICA tax. An increase in taxes would directly increase the amount of contributions to the trust funds. This change would only affect the working population who participate in FICA taxes. A third possibility is that a higher tax could be levied on the

retirement benefits. This tax increase would lower benefit payments to retirees while retaining some of the assets in the trust funds. The most reasonable change to the future of Social Security would probably be some combination of these proposed changes.

Actuarial Assumptions.

So, what benefits can one expect to receive from his or her FICA contributions? First and foremost, forecasting into the future, especially with respect to a money's-worth analysis of social security benefits, is very imperfect. Trying to determine whether or not one will get his taxes back in benefits requires a large number of variables and is contingent upon a varied number of factors. Also, a study such as this can report only expected values, or what can be expected to happen on average. As is true with any insurance, some individuals may receive less in benefits than they pay in premiums, whereas others could receive far more cash benefits than they pay in premiums. The major difference between Social Security and other insurance plans for 90% of Americans is that Social Security is not a voluntary insurance. Workers are forced to pay taxes into the trust funds, and many expect a return equal to their contributions. Thus, the Social Security Administration and Congress have a very difficult problem in front of them. They must find a way to keep Social Security out of bankruptcy while finding at least partial public approval of changes to the system at the same time.

In order to analyze the U.S. Social Security System, one must break the insurance down into its three separate pieces: OASI, DI, and HI. In that manner, it becomes easier to make projections on Social Security by decreasing the number of variables in the "big picture" and focus on specific, separate units. For purposes of this paper, I will specifically analyze the Old Age-Survivors Insurance portion of OASDHI since it is the primary and most used function of Social Security. Even separated from disability and hospital insurance, OASI is a very complex insurance to finance. There are many factors involved in both incoming taxes and interest accumulations and outgoing funds to retired workers and survivors of workers who die before retirement. The specifics involved in a money's-worth analysis include the OASI tax rate, how long an individual paid into the system, what an individual worker earned, at what interest rates the funds accumulated, the mortality of the worker, the age of retirement, and the amount of benefits received. Also, while we are examining the OASI portion of Social Security, only the retirement benefits will be taken into account. The insurance benefits of survivors of deceased workers are very minimal and have very little effect on this fund as a whole.

Assuming that Congress takes the necessary measures to keep Social Security out of financial exhaustion, we can project what value retired workers will get for their FICA taxes over the next 75 years, based on current standards. Several assumptions are necessary in calculating this model. First, we will standardize

the life span of every contributing worker. Workers are assumed to begin contributing to the fund at age 21 and work until the natural age of retirement. Beginning at age 21 is a compromise between those who start as teenagers and those who don't contribute until after post-secondary education. Retirement at the natural retirement age will also be assumed since those individuals who retire early(hence, receive lower benefits) are balanced out with those who retire after reaching their NRA. Beyond the NRA, we will project that retirees will live as long as their life expectancy at their NRA. The life expectancy is also the average of a pool of individuals that reach the retirement age. Appropriate projections and tables are made to distinguish between female and male workers. Because there is a significant difference between life expectancy of women and men, there are separate calculations based on sex. Therefore, a female will always have a larger estimated benefit/tax ratio because she is expected to live longer and receive more benefits.

Next, we will determine what tax rates are to be used in collecting contributions. The OASI tax rate is archived on record with the Social Security Administration for past years. For future years, we must use rates that are regulated to be charged under current law. This starts at 5.26% for 1994-1996, is 5.35% in 1997-1999, and for the year 2000 and beyond is 5.30%. Future rates are always subject to change based on Congressional approval. Still, what must be determined about the OASI tax rate is whether to use

the employee-employer combined tax rate or just the employee portion of the tax for analysis. One argument for an employee only tax analysis is that the employee currently "pays" for the employer tax portion through lower wages or reduced employee benefits. Another argument is that the employer tax is passed on to the consumer through higher prices of goods, and the consumer is usually a tax-paying worker. However, I will use an employee-employer combined tax rate for this analysis. Because I want to analyze the value of an individual's benefits to his input, we shall look at the entire amount put into the trust fund on the employee's behalf. One could easily determine the benefit-tax ratio of an employee only tax rate by doubling the figures projected here.

Now, we must determine the tax dollars paid into the trust funds. Two different figures will be analyzed in respect to this. First, we will use a worker's average wage per year based on calculations and projections of the Board of Trustees reports, Table B.1. The average wage is a balance between those periods of the life cycle in which an individual earns a lower income and those in which he earns more. Also taken into consideration is the maximum wage earned. These wages are recorded in Table B.2. and earn the maximum benefit payments after retirement.

Finally, we must choose the interest rates at which contributions accumulate and future benefits are valued. For the

accumulation of contributions, we will use nominal interest rates as recorded in Table A.2. Nominal interest rates account for inflation and will value contributions in "current" dollars. The real interest rate is used in determining the present value of future retirement benefits. The real interest rate does not include inflation, which is appropriate for this model since future benefit payments are listed in year of retirement dollars. Instead of selecting an exact, real interest rate, it is more appropriate to select a range of rates. This is how Social Security Administration makes insurance projections, allowing variance for uncertain experience. An effective annual interest rate of 2% follows the Social Security's intermediate alternative, while real rates of 1% and 3% are used for the pessimistic and optimistic projections. The hope is that what actually happens will fall within the given range.

ACTUARIAL METHODS.

Next, what must be determined is how to value the contributions and the benefits to be paid. First, set a value of time at the NRA. As previously stated, all taxes paid to the trust funds will be accumulated to the NRA at the nominal interest rates and the present value of benefit payments will be valued at real interest rates. Therefore, for each worker in this model, there would be 45 to 47 tax payments annually based on his NRA, and each contribution would be appropriately accumulated to that day by varying interest rates. (See Table B.3.) This leads to a complex

formula:

$$FV=\sum [PMT_n * \prod (1+i_t)]$$

For example an average earning worker retiring in the year 1995 would have:

$$FV = 2,6111.62 + 2,514.24*(1.071) + \ldots +$$
$$83.97*(1.0225)*\ldots*(1.071)$$

The present value of all future benefits from the date of retirement will also be valued at the NRA and is much easier to calculate. Based on sex(life expectancy), monthly benefit amount and real interest rate, an individual's benefits amounts (See Appendix C) would be calculated by:

$$PV=Benefit*a_{m_i}$$

where m is the life expectancy in months and i is a monthly interest rate. Thus, a woman retiring in the year 1995 would have these benefits:

$$PV=860.17*a_{229_{.0016516}}$$

From this point, all that is needed is a simple division to show the present value of benefits to future value of contributions ratio. Appendix D shows six different benefit/tax ratio tables based on sex, wages and the real interest rate assumptions used. It shows the percent of taxes paid that workers can expect to receive on average based on the year of retirement. Appendix E illustrates how another change in the NRA would affect benefit/tax ratios.

Conclusion.

It is inevitable that changes will have to be made to keep Social Security from financial ruin. One very important factor to consider would be to keep the benefit/tax ratio at or below 100%. Initial ratios above 500% in the 1960's put the Social Security Administration in a bad situation right from the start. Amendments to the Social Security Act haven't brought these percentages below 100% until the 1990's. Also, with the expectation of increased life expectancies, the benefit/tax ratios are heading to and over (for average earning workers) the 100% mark. As shown in Appendix E, a retirement age at 70 would keep the ratio at a lower, more constant level. This projected hike in the NRA would work in a similar fashion to the increase of the early 21st century. The retirement age would increase by six months every five years starting in 2040. Thus, the NRA would be 68 in 2045, 69 in 2055, and 70 by the year 2065.

Whatever changes are made to the Social Security Program, the fact is that benefits are going to have to be less attractive in the future than what they have been in the past if this program is to continue.

APPENDIX A

Table A.1.
NRA and Female/Male Life Expectancies

Year of Retirement	NRA	Life Expectancies Female	Male	Year of Retirement	NRA	Life Expectancies Female	Male
	65:0	13.1	11.8		65:0	17.7	13.5
	65:0	13.4	12.1		65:0	18.0	13.7
	65:0	13.4	12.0		65:0	18.1	13.7
	65:0	13.4	11.9		65:0	18.3	13.9
	65:0	13.8	12.2		65:0	18.3	13.9
	65:0	14.1	12.4		65:0	18.6	14.2
	65:0	13.7	12.1		65:0	18.4	14.0
	65:0	14.1	12.5		65:0	18.6	14.2
	65:0	14.4	12.6		65:0	18.8	14.5
	65:0	14.6	12.9		65:0	18.6	14.3
	65:0	14.5	12.6		65:0	18.7	14.4
	65:0	14.7	12.7		65:0	18.6	14.4
	65:0	14.9	12.8		65:0	18.7	14.5
	65:0	15.1	12.8		65:0	18.7	14.6
	65:0	15.2	12.8		65:0	18.7	14.6
	65:0	15.3	13.0		65:0	18.9	14.8
	65:0	15.3	12.9		65:0	19.0	15.0
	65:0	15.7	13.2		65:0	19.1	15.1
	65:0	15.6	13.1		65:0	18.9	15.0
	65:0	15.7	13.0		65:0	18.9	15.1
	65:0	15.6	12.9		65:0	19.0	15.2
	65:0	15.7	12.9		65:0	19.1	15.3
	65:0	15.9	13.1		65:0	19.3	15.5
	65:0	15.9	12.9		65:4	19.1	15.5
	65:0	16.1	13.1		66:0	18.6	15.1
	65:0	16.0	12.9		66:0	18.8	15.3
	65:0	16.0	12.7		66:0	19.1	15.5
	65:0	16.3	13.0		66:8	18.7	15.0
	65:0	16.3	12.9		67:0	18.6	14.9
	65:0	16.3	12.9		67:0	18.8	15.1
	65:0	16.6	13.0		67:0	19.0	15.3
	65:0	16.6	12.8		67:0	19.3	15.5
	65:0	16.9	13.0		67:0	19.5	15.7
	65:0	17.1	13.1		67:0	19.7	15.9
	65:0	17.1	13.1		67:0	19.9	16.1
	65:0	17.2	13.1		67:0	20.1	16.2
	65:0	17.3	13.2		67:0	20.3	16.4

1) 1937 - 1988 [10, pg16]
2) 1989 - 2070 [11, pg 62]

Table A.2.
Nominal Interest Rates

Year	Interest Rate	Year	Interest Rate	Year	Interest Rate
	2.250		2.917		11.031
	2.250		3.812		12.396
	2.250		3.854		10.781
	2.250		3.906		7.990
	2.250		4.136		8.396
	2.250		4.198		8.823
	2.250		4.948		8.656
	2.250		4.958		8.625
	2.250		5.490		8.000
	2.250		6.594		7.100
	2.250		7.260		6.100
	2.250		5.979		7.100
	2.250		5.927		7.700
	2.250		6.646		7.600
	2.188		7.490		7.600
	2.250		7.396		7.400
	2.354		7.146		7.200
	2.302		7.084		7.100
	2.292		8.198		7.000
	2.469		9.115		6.900
	2.500		11.000		6.700
	2.562		13.333		6.500
	2.625		12.781		6.300

1) 1937-1990 [7, pg 254-255]
2) 1991-2005+ [11, pg 56]

APPENDIX B

Table B.1.

Employee/Employer Combined OASI Tax Rate, Average Earner's Taxes and Wages

Year	Tax Rate	Average Earner's Wages	Average Earner's Taxes	Year	Tax Rate	Average Earner's Wages	Average Earner's Taxes
	2.00	$1,150.45	$23.01		8.75	$8,030.76	$702.69
	2.00	1,053.23	21.06		8.75	8,630.92	755.21
	2.00	1,142.35	22.85		8.75	9,226.48	807.32
	2.00	1,195.01	23.90		8.75	9,779.44	855.70
	2.00	1,276.03	25.52		8.55	10,556.03	902.54
	2.00	1,454.27	29.09		8.66	11,479.46	994.12
	2.00	1,713.52	34.27		9.04	12,513.46	1,131.22
	2.00	1,936.32	38.73		9.40	13,773.10	1,294.67
	2.00	2,021.39	40.43		9.15	14,531.34	1,329.62
	2.00	1,891.76	37.84		9.55	15,239.24	1,455.35
	2.00	2,175.32	43.51		10.40	16,135.07	1,678.05
	2.00	2,361.66	47.23		10.40	16,822.51	1,749.54
	2.00	2,483.19	49.66		10.40	17,321.82	1,801.47
	3.00	2,543.95	76.32		10.40	18,426.51	1,916.36
	3.00	2,799.16	83.97		11.06	19,334.04	2,138.34
	3.00	2,973.32	89.20		11.06	20,099.55	2,223.01
	3.00	3,139.44	94.18		11.20	21,027.98	2,355.13
	4.00	3,155.64	126.23		11.20	21,811.60	2,442.90
	4.00	3,301.44	132.06		11.20	22,935.42	2,568.77
	4.00	3,532.36	141.29		11.20	23,132.67	2,590.86
	4.00	3,641.72	145.67		10.52	23,899.66	2,514.24
	4.00	3,673.80	146.95		10.52	24,825.27	2,611.62
	4.50	3,855.80	173.51		10.60	30,384.43	3,220.75
	5.50	4,007.12	220.39		10.60	38,434.24	4,074.03
	5.50	4,086.76	224.77		10.60	49,052.91	5,199.61
	5.75	4,291.40	246.76		10.60	62,605.35	6,636.17
	6.75	4,396.64	296.77		10.60	79,902.07	8,469.62
	6.75	4,576.32	308.90		10.60	101,977.53	10,809.62
	6.75	4,658.72	314.46		10.60	130,152.03	13,796.12
	7.00	4,938.36	345.69		10.60	166,110.63	17,607.73
	7.10	5,213.44	370.15		10.60	212,003.91	22,472.41
	6.65	5,571.76	370.52		10.60	270,576.66	28,681.13
	7.45	5,896.76	439.31		10.60	345,332.00	36,605.19
	7.30	6,186.24	451.60		10.60	440,740.84	46,718.53
	8.10	6,497.08	526.26		10.60	562,509.44	59,626.00
	8.10	7,133.80	577.84		10.60	717,920.38	76,099.56
	8.60	7,580.16	651.89		10.60	916,268.56	97,124.47

1) Avg Wages 1937 - 1980 [6, pg 538-539]

2) 1981 - 2070 [11, pg 65, 177]

Table B.2.
Employee/Employer Combined OASI Tax Rate, Maximum Earner's Taxes and Wages

Year	Tax Rate	Maximum Earner's Wages	Maximum Earner's Taxes	Year	Tax Rate	Maximum Earner's Wages	Maximum Earner's Taxes
	2.00	$3,000.00	$60.00		8.75	$13,200.00	$1,155.00
	2.00	3,000.00	60.00		8.75	14,100.00	1,233.75
	2.00	3,000.00	60.00		8.75	15,300.00	1,338.75
	2.00	3,000.00	60.00		8.75	16,500.00	1,443.75
	2.00	3,000.00	60.00		8.55	17,700.00	1,513.35
	2.00	3,000.00	60.00		8.66	22,900.00	1,983.14
	2.00	3,000.00	60.00		9.04	25,900.00	2,341.36
	2.00	3,000.00	60.00		9.40	29,700.00	2,791.80
	2.00	3,000.00	60.00		9.15	32,400.00	2,964.60
	2.00	3,000.00	60.00		9.55	35,700.00	3,409.35
	2.00	3,000.00	60.00		10.40	37,800.00	3,931.20
	2.00	3,000.00	60.00		10.40	39,600.00	4,118.40
	2.00	3,000.00	60.00		10.40	42,000.00	4,368.00
	3.00	3,000.00	90.00		10.40	43,800.00	4,555.20
	3.00	3,600.00	108.00		11.06	45,000.00	4,977.00
	3.00	3,600.00	108.00		11.06	48,000.00	5,308.80
	3.00	3,600.00	108.00		11.20	51,300.00	5,745.60
	4.00	3,600.00	144.00		11.20	53,400.00	5,980.80
	4.00	4,200.00	168.00		11.20	55,500.00	6,216.00
	4.00	4,200.00	168.00		11.20	57,600.00	6,451.20
	4.00	4,200.00	168.00		10.52	60,600.00	6,375.12
	4.00	4,200.00	168.00		10.52	61,200.00	6,438.24
	4.50	4,800.00	216.00		10.60	72,922.63	7,729.80
	5.50	4,800.00	264.00		10.60	92,242.18	9,777.67
	5.50	4,800.00	264.00		10.60	117,726.98	12,479.06
	5.75	4,800.00	276.00		10.60	150,252.84	15,926.80
	6.75	4,800.00	324.00		10.60	191,764.97	20,327.09
	6.75	4,800.00	324.00		10.60	244,746.07	25,943.08
	6.75	4,800.00	324.00		10.60	312,364.87	33,110.68
	7.00	6,600.00	462.00		10.60	398,665.51	42,258.54
	7.10	6,600.00	468.60		10.60	508,809.38	53,933.79
	6.65	7,800.00	518.70		10.60	649,383.98	68,834.70
	7.45	7,800.00	581.10		10.60	828,796.80	87,852.46
	7.30	7,800.00	569.40		10.60	1,057,778.02	112,124.47
	8.10	7,800.00	631.80		10.60	1,350,022.66	143,102.40
	8.10	9,000.00	729.00		10.60	1,723,008.91	182,638.94
	8.60	10,800.00	928.80		10.60	2,199,044.54	233,098.72

1) Max Wages 1937 - 1980 [6, pg 538-539]

2) 1981 - 1995 [11, pg 66]

3) 2000 - 2070 is 240% of average wage [7, pg 253]

Table B.3.
Accumulated Tax Values at Year of Retirement

Year of Retirement	Total Taxes		Year of Retirement	Total Taxes	
	Average Earner's	Maximum Earner's		Average Earner's	Maximum Earner's
	$2,215.26	$3,049.21		$61,935.06	$97,866.33
	2,504.65	3,402.16		68,510.24	109,643.34
	2,846.89	3,807.85		76,038.79	123,192.36
	3,253.38	4,278.60		84,535.40	138,696.05
	3,689.36	4,769.72		93,725.04	155,730.56
	4,156.41	5,291.00		103,771.60	174,381.83
	4,676.59	5,975.12		114,058.98	193,744.26
	5,278.14	6,739.36		124,085.03	213,109.06
	5,910.35	7,592.20		133,445.12	231,609.87
	6,674.14	8,590.11		144,366.93	253,119.28
	7,565.82	9,725.95		213,735.43	391,680.64
	8,641.37	11,063.85		307,136.77	586,083.73
	9,735.87	12,454.36		418,676.28	854,574.02
	10,964.81	14,121.33		535,190.61	1,153,217.03
	12,396.22	16,214.83		660,856.98	1,512,455.91
	14,079.91	18,663.07		790,343.59	1,878,141.28
	15,928.57	21,382.14		960,349.26	2,309,125.05
	17,922.53	24,353.86		1,173,624.27	2,830,307.52
	20,094.63	27,592.34		1,441,573.82	3,468,659.85
	22,736.11	31,837.50		1,817,403.28	4,361,767.86
	25,939.72	37,080.85		2,313,877.54	5,553,306.09
	30,087.78	43,951.54		2,953,019.63	7,087,247.11
	35,276.84	52,379.44		3,768,884.58	9,045,323.00
	41,087.32	62,045.79		4,810,157.77	11,544,378.65
	47,116.73	72,346.05		6,139,115.36	14,733,876.87
	54,498.79	84,910.11			

APPENDIX C

Table C.1.
Monthly Benefit Amounts

Year of Retirement	Monthly Benefits		Year of Retirement	Monthly Benefits	
	Average Earner's	Maximum Earner's		Average Earner's	Maximum Earner's
	$107.00	$119.00		576.40	760.10
	108.40	120.00		593.50	789.20
	111.40	121.00		626.50	838.60
	114.40	122.00		668.50	899.60
	117.50	123.00		720.40	975.00
	120.00	131.70		751.10	1,022.90
	120.60	132.70		794.90	1,088.70
	122.00	135.90		820.20	1,128.80
	141.30	156.00		829.50	1,147.50
	143.60	160.50		860.17	1,202.00
	168.40	189.80		1,037.17	1,507.67
	189.00	213.10		1,318.33	1,988.92
	232.10	216.10		1,688.25	2,667.83
	237.90	266.10		2,184.25	3,465.50
	254.00	274.60		2,806.00	4,467.25
	271.00	316.30		3,726.33	5,922.67
	292.30	364.00		4,755.83	7,557.08
	315.90	412.70		6,070.17	9,641.00
	342.20	459.80		7,746.75	12,276.83
	400.30	503.40		9,887.83	15,653.00
	450.90	572.00		12,619.92	19,973.42
	532.80	677.00		16,107.50	25,491.67
	535.40	979.30		20,557.33	32,535.08
	553.00	709.50		26,238.17	41,524.92
	542.80	703.60		33,487.25	52,996.08
	548.40	717.20			

1) 1960 - 1994 [3, pg 14]

2) 1995-2070 [11, pg 185]

Table C.2.
Present Value of Retirement Benefits
at 1% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning		Year of Retirement	Average Earning	
	Female	Male		Female	Male
	$18,801.63	$15,462.89		117,783.16	93,355.48
	19,324.97	15,950.95		121,277.42	96,638.38
	19,764.87	16,098.75		128,020.73	102,011.70
	20,297.14	16,330.83		137,712.11	110,005.45
	21,147.27	17,186.85		149,596.70	120,408.98
	21,597.21	17,341.56		156,593.00	126,186.66
	21,705.19	17,428.27		163,750.72	132,861.05
	22,371.45	17,845.07		168,962.56	137,795.63
	25,910.53	20,295.32		172,252.17	140,071.36
	26,696.96	21,004.52		179,331.75	145,988.87
	31,734.15	24,779.89		217,947.03	178,698.59
	35,616.12	27,811.16		274,852.57	227,142.19
	43,933.76	34,153.28		343,579.57	283,630.18
	45,232.01	35,215.43		448,148.14	370,714.42
	49,360.14	38,488.05		585,008.58	483,459.67
	53,571.15	41,537.30		761,449.20	622,826.20
	58,025.89	44,802.04		967,870.38	786,702.46
	63,237.94	48,970.09		1,245,431.57	1,019,803.02
	68,502.76	53,047.06		1,608,673.30	1,314,790.85
	81,465.96	63,446.00		2,077,799.00	1,703,623.88
	90,638.41	70,682.34		2,683,118.99	2,195,953.61
	108,431.33	84,446.73		3,451,114.00	2,830,348.11
	109,849.38	86,715.00		4,438,278.71	3,664,850.96
	112,542.28	88,128.25		5,729,266.97	4,699,938.80
	110,917.24	86,973.39		7,366,924.35	6,055,390.13
	111,606.12	87,870.68			

Table C.3.
Present Value of Retirement Benefits
at 2% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning		Year of Retirement	Average Earning	
	Female	Male		Female	Male
[redacted]	$17,437.00	$14,538.84	[redacted]	107,848.75	87,107.29
	17,902.04	14,980.46		111,048.29	90,136.13
	18,316.47	15,136.70		117,222.83	95,147.91
	18,809.73	15,366.73		126,002.90	102,525.71
	19,575.37	16,147.36		136,775.15	112,093.90
	19,991.86	16,305.24		143,118.58	117,427.96
	20,091.82	16,386.77		149,827.53	123,686.06
	20,677.33	16,765.77		154,596.23	128,231.15
	23,948.42	19,089.83		157,488.88	130,299.42
	24,647.42	19,734.14		163,900.72	135,752.56
	29,264.88	23,272.22		199,045.27	165,979.81
	32,844.79	26,119.06		251,202.23	210,975.47
	40,500.00	32,075.31		314,717.65	263,943.23
	41,681.12	33,060.15		410,196.28	344,721.02
	45,399.96	36,077.10		534,670.13	449,049.68
	49,199.40	38,905.54		697,224.82	579,815.71
	53,270.68	41,963.43		886,565.80	732,932.27
	58,012.24	45,832.32		1,139,960.99	949,017.85
	62,842.01	49,648.06		1,470,798.02	1,222,601.60
	74,622.52	59,290.00		1,897,598.99	1,582,369.34
	83,117.42	66,102.80		2,447,694.55	2,038,112.88
	99,322.71	78,915.09		3,145,969.76	2,624,920.48
	100,546.68	80,911.25		4,042,853.95	3,395,001.75
	103,088.32	82,324.03		5,213,032.76	4,352,229.92
	101,561.94	81,214.24		6,698,176.35	5,603,170.78
	102,230.81	82,052.12			

Table C.4.
Present Value of Retirement Benefits
at 3% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning		Year of Retirement	Average Earning	
	Female	Male		Female	Male
[redacted]	$16,215.52	$13,696.14	[redacted]	99,110.14	81,468.07
	16,630.34	14,096.79		102,050.43	84,270.64
	17,021.33	14,259.34		107,724.67	88,956.29
	17,479.72	14,486.58		115,713.62	95,785.44
	18,171.97	15,200.37		125,519.90	104,612.50
	18,558.61	15,360.15		131,296.25	109,551.50
	18,651.40	15,436.95		137,592.76	115,430.98
	19,167.93	15,782.51		141,972.05	119,630.07
	22,200.24	17,989.89		144,529.10	121,516.32
	22,824.17	18,576.79		150,361.68	126,556.83
	27,071.61	21,899.43		182,477.92	154,571.66
	30,383.22	24,578.34		230,451.63	196,474.66
	37,451.61	30,183.25		289,316.88	246,239.28
	38,530.37	31,098.70		376,829.70	321,370.00
	41,895.04	33,887.55		490,503.63	418,185.51
	45,338.13	36,517.93		640,731.11	541,117.51
	49,072.88	39,388.16		815,011.31	684,503.10
	53,403.81	42,988.59		1,047,233.18	885,362.65
	57,849.90	46,567.57		1,349,765.85	1,139,783.93
	68,599.76	55,531.27		1,739,654.09	1,473,609.65
	76,488.21	61,956.72		2,241,660.35	1,896,683.12
	91,306.40	73,912.22		2,879,191.00	2,441,041.28
	92,367.92	75,673.15		3,697,496.73	3,153,831.64
	94,768.09	77,077.36		4,762,848.94	4,041,634.92
	93,332.73	76,011.01		6,115,583.86	5,199,636.27
	93,979.79	76,795.21			

Table C.5.
Present Value of Retirement Benefits
at 1% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning		Year of Retirement	Maximum Earning	
	Female	Male		Female	Male
[redacted]	$20,910.22	$17,197.05	[redacted]	155,320.92	123,108.09
	21,392.96	17,657.88		161,267.30	128,503.81
	21,468.12	17,486.07		171,361.83	136,547.51
	21,645.55	17,415.75		185,319.10	148,034.26
	22,137.14	17,991.34		202,466.38	162,963.29
	23,702.94	19,032.36		213,259.19	171,849.73
	23,882.91	19,176.87		224,274.01	181,967.32
	24,920.32	19,878.23		232,534.68	189,641.19
	28,606.11	22,406.73		238,287.36	193,769.60
	29,838.87	23,476.50		250,598.83	204,005.37
	35,766.88	27,928.87		316,816.45	259,763.37
	40,157.65	31,357.45		414,659.06	342,680.32
	40,905.15	31,798.89		542,936.79	448,202.60
	50,593.68	39,389.77		711,025.47	588,170.22
	53,363.37	41,609.52		931,354.10	769,684.67
	62,526.03	48,480.62		1,210,253.99	989,925.39
	72,259.40	55,791.80		1,537,959.10	1,250,080.82
	82,615.69	63,975.81		1,978,068.55	1,619,711.85
	92,044.33	71,277.14		2,549,380.57	2,083,643.86
	102,448.07	79,786.95		3,289,273.46	2,696,933.06
	114,981.53	89,665.78		4,246,545.76	3,475,513.95
	137,777.80	107,301.87		5,461,719.56	4,479,297.88
	200,925.48	158,610.38		7,024,246.05	5,800,179.89
	144,391.95	113,068.70		9,067,223.97	7,438,193.74
	143,775.56	112,738.53		11,658,710.01	9,583,108.79
	145,958.99	114,917.67			

Table C.6.
Present Value of Retirement Benefits
at 2% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning		Year of Retirement	Maximum Earning	
	Female	Male		Female	Male
[redacted]	$19,392.55	$16,169.36	[redacted]	142,220.39	114,868.59
	19,817.76	16,583.53		147,665.22	119,857.51
	19,894.91	16,441.12		156,908.33	127,360.00
	20,059.33	16,387.59		169,562.02	137,968.77
	20,491.66	16,903.19		185,113.51	151,709.54
	21,941.07	17,895.00		194,908.80	159,921.53
	22,107.67	18,030.88		205,204.72	169,401.21
	23,033.19	18,675.97		212,763.01	176,478.08
	26,439.87	21,075.82		217,864.36	180,251.46
	27,548.13	22,056.61		229,035.46	189,701.12
	32,983.81	26,229.62		289,340.11	241,274.85
	37,032.93	29,449.59		378,978.74	318,290.23
	37,708.10	29,864.18		497,328.15	417,092.58
	46,621.88	36,979.01		650,811.59	546,929.47
	49,082.01	39,003.04		851,213.53	714,902.77
	57,423.51	45,408.94		1,108,175.21	921,564.13
	66,337.76	52,256.89		1,408,765.02	1,164,639.27
	75,788.71	59,876.54		1,810,553.90	1,507,286.64
	84,438.21	66,710.04		2,330,879.68	1,937,544.92
	93,842.07	74,560.54		3,004,006.63	2,504,980.25
	105,440.60	83,856.29		3,873,941.83	3,225,701.00
	126,203.97	100,273.12		4,978,799.47	4,154,188.91
	183,909.91	147,994.75		6,398,426.68	5,373,102.78
	132,262.51	105,621.88		8,250,223.95	6,887,904.44
	131,648.82	105,273.29		10,600,366.17	8,867,437.77
	133,697.91	107,308.14			

Table C.7.
Present Value of Retirement Benefits
at 3% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning		Year of Retirement	Maximum Earning	
	Female	Male		Female	Male
	$18,034.08	$15,232.15		130,696.77	107,432.13
	18,409.97	15,605.30		135,700.42	112,057.95
	18,488.16	15,488.16		144,194.59	119,072.22
	18,640.96	15,448.98		155,715.74	128,898.40
	19,022.57	15,911.88		169,880.49	141,584.11
	20,368.07	16,857.77		178,808.33	149,194.82
	20,522.73	16,985.77		188,447.90	158,094.99
	21,351.82	17,580.69		195,388.99	164,640.84
	24,509.81	19,861.45		199,936.27	168,101.24
	25,510.31	20,763.06		210,115.95	176,850.97
	30,511.82	24,682.38		265,257.15	224,691.50
	34,257.48	27,712.41		347,673.15	296,413.45
	34,869.85	28,102.54		457,188.93	389,116.17
	43,097.65	34,785.06		597,872.64	509,881.08
	45,292.82	36,635.91		780,898.91	665,765.94
	52,916.79	42,622.22		1,018,383.62	860,056.89
	61,110.26	49,049.91		1,295,063.97	1,087,684.66
	69,768.13	56,161.42		1,663,278.06	1,406,185.65
	77,730.52	62,570.92		2,139,071.28	1,806,297.79
	86,268.10	69,833.73		2,753,970.92	2,332,807.51
	97,030.96	78,596.68		3,547,853.55	3,001,861.53
	116,018.08	93,916.24		4,556,596.44	3,863,182.40
	168,950.13	138,413.75		5,851,846.75	4,991,414.67
	121,587.63	98,890.39		7,537,756.28	6,396,352.13
	120,981.77	98,528.65		9,678,369.89	8,228,814.17
	122,907.19	100,433.12			

APPENDIX D

Table D.1.

Benefit/Tax Ratio

at 1% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning Female	Male	Year of Retirement	Average Earning Female	Male
[redacted]	848.73%	698.02%	[redacted]	190.17%	150.73%
	771.56%	636.85%		177.02%	141.06%
	694.26%	565.49%		168.36%	134.16%
	623.88%	501.97%		162.90%	130.13%
	573.20%	465.85%		159.61%	128.47%
	519.61%	417.22%		150.90%	121.60%
	464.12%	372.67%		143.57%	116.48%
	423.85%	338.09%		136.17%	111.05%
	438.39%	343.39%		129.08%	104.97%
	400.01%	314.72%		124.22%	101.12%
	419.44%	327.52%		101.97%	83.61%
	412.16%	321.84%		89.49%	73.95%
	451.26%	350.80%		82.06%	67.74%
	412.52%	321.17%		83.74%	69.27%
	398.19%	310.48%		88.52%	73.16%
	380.48%	295.01%		96.34%	78.80%
	364.29%	281.27%		100.78%	81.92%
	352.84%	273.23%		106.12%	86.89%
	340.90%	263.99%		111.59%	91.21%
	358.31%	279.05%		114.33%	93.74%
	349.42%	272.49%		115.96%	94.90%
	360.38%	280.67%		116.87%	95.85%
	311.39%	245.81%		117.76%	97.24%
	273.91%	214.49%		119.11%	97.71%
	235.41%	184.59%		120.00%	98.64%
	204.79%	161.23%			

Table D.2.
Benefit/Tax Ratio
at 2% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning Female	Male	Year of Retirement	Average Earning Female	Male
	787.13%	656.30%		174.13%	140.64%
	714.75%	598.10%		162.09%	131.57%
	643.39%	531.69%		154.16%	125.13%
	578.16%	472.33%		149.05%	121.28%
	530.59%	437.67%		145.93%	119.60%
	480.99%	392.29%		137.92%	113.16%
	429.63%	350.40%		131.36%	108.44%
	391.75%	317.65%		124.59%	103.34%
	405.19%	322.99%		118.02%	97.64%
	369.30%	295.68%		113.53%	94.03%
	386.80%	307.60%		93.13%	77.66%
	380.09%	302.26%		81.79%	68.69%
	415.99%	329.45%		75.17%	63.04%
	380.14%	301.51%		76.64%	64.41%
	366.24%	291.03%		80.91%	67.95%
	349.43%	276.32%		88.22%	73.36%
	334.43%	263.45%		92.32%	76.32%
	323.68%	255.72%		97.13%	80.86%
	312.73%	247.07%		102.03%	84.81%
	328.21%	260.77%		104.41%	87.07%
	320.43%	254.83%		105.78%	88.08%
	330.11%	262.28%		106.53%	88.89%
	285.02%	229.36%		107.27%	90.08%
	250.90%	200.36%		108.38%	90.48%
	215.55%	172.37%		109.11%	91.27%
	187.58%	150.56%			

Table D.3.
Benefit/Tax Ratio
at 3% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning		Year of Retirement	Average Earning	
	Female	Male		Female	Male
	731.99%	618.26%		160.02%	131.54%
	663.98%	562.82%		148.96%	123.00%
	597.89%	500.87%		141.67%	116.99%
	537.28%	445.28%		136.88%	113.31%
	492.55%	412.01%		133.92%	111.62%
	446.51%	369.55%		126.52%	105.57%
	398.83%	330.09%		120.63%	101.20%
	363.16%	299.02%		114.42%	96.41%
	375.62%	304.38%		108.31%	91.06%
	341.98%	278.34%		104.15%	87.66%
	357.81%	289.45%		85.38%	72.32%
	351.60%	284.43%		75.03%	63.97%
	384.68%	310.02%		69.10%	58.81%
	351.40%	283.62%		70.41%	60.05%
	337.97%	273.37%		74.22%	63.28%
	322.01%	259.36%		81.07%	68.47%
	308.08%	247.28%		84.87%	71.28%
	297.97%	239.86%		89.23%	75.44%
	287.89%	231.74%		93.63%	79.07%
	301.72%	244.24%		95.72%	81.08%
	294.87%	238.85%		96.88%	81.97%
	303.47%	245.66%		97.50%	82.66%
	261.84%	214.51%		98.11%	83.68%
	230.65%	187.59%		99.02%	84.02%
	198.09%	161.32%		99.62%	84.70%
	172.44%	140.91%			

Table D.4.
Benefit/Tax Ratio
at 1% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning Female	Maximum Earning Male	Year of Retirement	Maximum Earning Female	Maximum Earning Male
[redacted]	685.76%	563.98%	[redacted]	158.71%	125.79%
	628.81%	519.02%		147.08%	117.20%
	563.79%	459.21%		139.10%	110.84%
	505.90%	407.04%		133.62%	106.73%
	464.12%	377.20%		130.01%	104.64%
	447.99%	359.71%		122.29%	98.55%
	399.71%	320.95%		115.76%	93.92%
	369.77%	294.96%		109.12%	88.99%
	376.78%	295.13%		102.88%	83.66%
	347.36%	273.30%		99.00%	80.60%
	367.75%	287.16%		80.89%	66.32%
	362.96%	283.42%		70.75%	58.47%
	328.44%	255.32%		63.53%	52.45%
	358.28%	278.94%		61.66%	51.00%
	329.10%	256.61%		61.58%	50.89%
	335.03%	259.77%		64.44%	52.71%
	337.94%	260.93%		66.60%	54.14%
	339.23%	262.69%		69.89%	57.23%
	333.59%	258.32%		73.50%	60.07%
	321.78%	250.61%		75.41%	61.83%
	310.08%	241.81%		76.47%	62.58%
	313.48%	244.14%		77.06%	63.20%
	383.60%	302.81%		77.66%	64.12%
	232.72%	182.23%		78.54%	64.43%
	198.73%	155.83%		79.13%	65.04%
	171.90%	135.34%			

Table D.5.
Benefit/Tax Ratio
at 2% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning Female	Male	Year of Retirement	Maximum Earning Female	Male
	635.99%	530.28%		145.32%	117.37%
	582.51%	487.44%		134.68%	109.32%
	522.47%	431.77%		127.37%	103.38%
	468.83%	383.01%		122.25%	99.48%
	429.62%	354.39%		118.87%	97.42%
	414.69%	338.22%		111.77%	91.71%
	370.00%	301.77%		105.92%	87.44%
	341.77%	277.12%		99.84%	82.81%
	348.25%	277.60%		94.07%	77.83%
	320.70%	256.77%		90.49%	74.95%
	339.13%	269.69%		73.87%	61.60%
	334.72%	266.18%		64.66%	54.31%
	302.77%	239.79%		58.20%	48.81%
	330.15%	261.87%		56.43%	47.43%
	302.70%	240.54%		56.28%	47.27%
	307.69%	243.31%		59.00%	49.07%
	310.25%	244.40%		61.01%	50.44%
	311.20%	245.86%		63.97%	53.26%
	306.02%	241.77%		67.20%	55.86%
	294.75%	234.19%		68.87%	57.43%
	284.35%	226.14%		69.76%	58.09%
	287.14%	228.14%		70.25%	58.61%
	351.11%	282.54%		70.74%	59.40%
	213.17%	170.23%		71.47%	59.66%
	181.97%	145.51%		71.95%	60.18%
	157.46%	126.38%			

Table D.6.
Benefit/Tax Ratio
at 3% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning Female	Male	Year of Retirement	Maximum Earning Female	Male
	591.43%	499.54%		133.55%	109.77%
	541.13%	458.69%		123.77%	102.20%
	485.53%	406.74%		117.05%	96.66%
	435.68%	361.08%		112.27%	92.94%
	398.82%	333.60%		109.09%	90.92%
	384.96%	318.61%		102.54%	85.56%
	343.47%	284.28%		97.27%	81.60%
	316.82%	260.87%		91.68%	77.26%
	322.83%	261.60%		86.32%	72.58%
	296.97%	241.71%		83.01%	69.87%
	313.72%	253.78%		67.72%	57.37%
	309.63%	250.48%		59.32%	50.58%
	279.98%	225.64%		53.50%	45.53%
	305.20%	246.33%		51.84%	44.21%
	279.33%	225.94%		51.63%	44.02%
	283.54%	228.38%		54.22%	45.79%
	285.80%	229.40%		56.08%	47.10%
	286.48%	230.61%		58.77%	49.68%
	281.71%	226.77%		61.67%	52.07%
	270.96%	219.34%		63.14%	53.48%
	261.67%	211.96%		63.89%	54.06%
	263.97%	213.68%		64.29%	54.51%
	322.55%	264.25%		64.69%	55.18%
	195.96%	159.38%		65.29%	55.41%
	167.23%	136.19%		65.69%	55.85%
	144.75%	118.28%			

APPENDIX E - Raising the NRA to 70.

Table E.1.

NRA and Female/Male Life Expectancies

Year of Retirement	NRA	Life Expectancies Female	Male	Year of Retirement	NRA	Life Expectancies Female	Male
[redacted]	65:0	13.1	11.8	[redacted]	65:0	17.7	13.5
	65:0	13.4	12.1		65:0	18.0	13.7
	65:0	13.4	12.0		65:0	18.1	13.7
	65:0	13.4	11.9		65:0	18.3	13.9
	65:0	13.8	12.2		65:0	18.3	13.9
	65:0	14.1	12.4		65:0	18.6	14.2
	65:0	13.7	12.1		65:0	18.4	14.0
	65:0	14.1	12.5		65:0	18.6	14.2
	65:0	14.4	12.6		65:0	18.8	14.5
	65:0	14.6	12.9		65:0	18.6	14.3
	65:0	14.5	12.6		65:0	18.7	14.4
	65:0	14.7	12.7		65:0	18.6	14.4
	65:0	14.9	12.8		65:0	18.7	14.5
	65:0	15.1	12.8		65:0	18.7	14.6
	65:0	15.2	12.8		65:0	18.7	14.6
	65:0	15.3	13.0		65:0	18.9	14.8
	65:0	15.3	12.9		65:0	19.0	15.0
	65:0	15.7	13.2		65:0	19.1	15.1
	65:0	15.6	13.1		65:0	18.9	15.0
	65:0	15.7	13.0		65:0	18.9	15.1
	65:0	15.6	12.9		65:0	19.0	15.2
	65:0	15.7	12.9		65:0	19.1	15.3
	65:0	15.9	13.1		65:0	19.3	15.5
	65:0	15.9	12.9		65:4	19.1	15.5
	65:0	16.1	13.1		66:0	18.6	15.1
	65:0	16.0	12.9		66:0	18.8	15.3
	65:0	16.0	12.7		66:0	19.1	15.5
	65:0	16.3	13.0		66:8	18.7	15.0
	65:0	16.3	12.9		67:0	18.6	14.9
	65:0	16.3	12.9		67:0	18.8	15.1
	65:0	16.6	13.0		67:6	18.6	14.9
	65:0	16.6	12.8		68:0	18.4	14.6
	65:0	16.9	13.0		68:6	18.2	14.4
	65:0	17.1	13.1		69:0	17.9	14.1
	65:0	17.1	13.1		69:6	17.7	13.9
	65:0	17.2	13.1		70:0	17.5	13.6
	65:0	17.3	13.2		70:0	17.7	13.8

1)This table is the same as Table A.1. except this author has projected the final 30 years at an increasing NRA to age 70 in 2065.

Raising the NRA to 70.

Table E.2.

Accumulated Tax Values at Year of Retirement

	Total Taxes			Total Taxes	
Year of Retirement	Average Earner's	Maximum Earner's	Year of Retirement	Average Earner's	Maximum Earner's
	$2,215.26	$3,049.21		$61,935.06	$97,866.33
	2,504.65	3,402.16		68,510.24	109,643.34
	2,846.89	3,807.85		76,038.79	123,192.36
	3,253.38	4,278.60		84,535.40	138,696.05
	3,689.36	4,769.72		93,725.04	155,730.56
	4,156.41	5,291.00		103,771.60	174,381.83
	4,676.59	5,975.12		114,058.98	193,744.26
	5,278.14	6,739.36		124,085.03	213,109.06
	5,910.35	7,592.20		133,445.12	231,609.87
	6,674.14	8,590.11		144,366.93	253,119.28
	7,565.82	9,725.95		213,735.43	391,680.64
	8,641.37	11,063.85		307,136.77	586,083.73
	9,735.87	12,454.36		418,676.28	854,574.02
	10,964.81	14,121.33		535,190.61	1,153,217.03
	12,396.22	16,214.83		660,856.98	1,512,455.91
	14,079.91	18,663.07		790,343.59	1,878,141.28
	15,928.57	21,382.14		960,349.26	2,309,125.05
	17,922.53	24,353.86		1,173,624.27	2,830,307.52
	20,094.63	27,592.34		1,505,265.03	3,621,998.57
	22,736.11	31,837.50		1,873,415.16	4,496,196.39
	25,939.72	37,080.85		2,472,880.59	5,934,913.42
	30,087.78	43,951.54		3,120,623.51	7,489,496.42
	35,276.84	52,379.44		3,940,610.46	9,457,465.11
	41,087.32	62,045.79		5,222,202.30	12,533,285.53
	47,116.73	72,346.05		6,665,000.24	15,996,000.59
	54,498.79	84,910.11			

Raising the NRA to 70.

Table E.3.

Present Value of Retirement Benefits

at 2% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning		Year of Retirement	Average Earning	
	Female	Male		Female	Male
[redacted]	$17,437.00	$14,538.84	[redacted]	107,848.75	87,107.29
	17,902.04	14,980.46		111,048.29	90,136.13
	18,316.47	15,136.70		117,222.83	95,147.91
	18,809.73	15,366.73		126,002.90	102,525.71
	19,575.37	16,147.36		136,775.15	112,093.90
	19,991.86	16,305.24		143,118.58	117,427.96
	20,091.82	16,386.77		149,827.53	123,686.06
	20,677.33	16,765.77		154,596.23	128,231.15
	23,948.42	19,089.83		157,488.88	130,299.42
	24,647.42	19,734.14		163,900.72	135,752.56
	29,264.88	23,272.22		199,045.27	165,979.81
	32,844.79	26,119.06		251,202.23	210,975.47
	40,500.00	32,075.31		314,717.65	263,943.23
	41,681.12	33,060.15		410,196.28	344,721.02
	45,399.96	36,077.10		534,670.13	449,049.68
	49,199.40	38,905.54		697,224.82	579,815.71
	53,270.68	41,963.43		886,565.80	732,932.27
	58,012.24	45,832.32		1,139,960.99	949,017.85
	62,842.01	49,648.06		1,444,122.01	1,193,869.23
	74,622.52	59,290.00		1,822,690.71	1,501,686.63
	83,117.42	66,102.80		2,308,743.83	1,888,203.74
	99,322.71	78,915.09		2,901,703.74	2,373,577.63
	100,546.68	80,911.25		3,674,418.15	2,982,558.85
	103,088.32	82,324.03		4,652,794.73	3,746,810.16
	101,561.94	81,214.24		5,985,511.69	4,833,031.58
	102,230.81	82,052.12			

Raising the NRA to 70.

Table E.4.

Present Value of Retirement Benefits

at 2% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning		Year of Retirement	Maximum Earning	
	Female	Male		Female	Male
[redacted]	$19,392.55	$16,169.36	[redacted]	142,220.39	114,868.59
	19,817.76	16,583.53		147,665.22	119,857.51
	19,894.91	16,441.12		156,908.33	127,360.00
	20,059.33	16,387.59		169,562.02	137,968.77
	20,491.66	16,903.19		185,113.51	151,709.54
	21,941.07	17,895.00		194,908.80	159,921.53
	22,107.67	18,030.88		205,204.72	169,401.21
	23,033.19	18,675.97		212,763.01	176,478.08
	26,439.87	21,075.82		217,864.36	180,251.46
	27,548.13	22,056.61		229,035.46	189,701.12
	32,983.81	26,229.62		289,340.11	241,274.85
	37,032.93	29,449.59		378,978.74	318,290.23
	37,708.10	29,864.18		497,328.15	417,092.58
	46,621.88	36,979.01		650,811.59	546,929.47
	49,082.01	39,003.04		851,213.53	714,902.77
	57,423.51	45,408.94		1,108,175.21	921,564.13
	66,337.76	52,256.89		1,408,765.02	1,164,639.27
	75,788.71	59,876.54		1,810,553.90	1,507,286.64
	84,438.21	66,710.04		2,288,604.29	1,892,010.66
	93,842.07	74,560.54		2,885,422.58	2,377,254.95
	105,440.60	83,856.29		3,654,025.91	2,988,441.29
	126,203.97	100,273.12		4,592,225.02	3,756,414.70
	183,909.91	147,994.75		5,815,321.40	4,720,349.62
	132,262.51	105,621.88		7,363,582.83	5,929,758.04
	131,648.82	105,273.29		9,472,520.93	7,648,634.77
	133,697.91	107,308.14			

Raising the NRA to 70.

Table E.5.

Benefit/Tax Ratio

at 2% Interest Rate for Average Wage Earners

Year of Retirement	Average Earning		Year of Retirement	Average Earning	
	Female	Male		Female	Male
	787.13%	656.30%		174.13%	140.64%
	714.75%	598.10%		162.09%	131.57%
	643.39%	531.69%		154.16%	125.13%
	578.16%	472.33%		149.05%	121.28%
	530.59%	437.67%		145.93%	119.60%
	480.99%	392.29%		137.92%	113.16%
	429.63%	350.40%		131.36%	108.44%
	391.75%	317.65%		124.59%	103.34%
	405.19%	322.99%		118.02%	97.64%
	369.30%	295.68%		113.53%	94.03%
	386.80%	307.60%		93.13%	77.66%
	380.09%	302.26%		81.79%	68.69%
	415.99%	329.45%		75.17%	63.04%
	380.14%	301.51%		76.64%	64.41%
	366.24%	291.03%		80.91%	67.95%
	349.43%	276.32%		88.22%	73.36%
	334.43%	263.45%		92.32%	76.32%
	323.68%	255.72%		97.13%	80.86%
	312.73%	247.07%		95.94%	79.31%
	328.21%	260.77%		97.29%	80.16%
	320.43%	254.83%		93.36%	76.36%
	330.11%	262.28%		92.98%	76.06%
	285.02%	229.36%		93.24%	75.69%
	250.90%	200.36%		89.10%	71.75%
	215.55%	172.37%		89.81%	72.51%
	187.58%	150.56%			

Raising the NRA to 70.
Table E.6.
Benefit/Tax Ratio
at 2% Interest Rate for Maximum Wage Earners

Year of Retirement	Maximum Earning Female	Male	Year of Retirement	Maximum Earning Female	Male
	635.99%	530.28%		145.32%	117.37%
	582.51%	487.44%		134.68%	109.32%
	522.47%	431.77%		127.37%	103.38%
	468.83%	383.01%		122.25%	99.48%
	429.62%	354.39%		118.87%	97.42%
	414.69%	338.22%		111.77%	91.71%
	370.00%	301.77%		105.92%	87.44%
	341.77%	277.12%		99.84%	82.81%
	348.25%	277.60%		94.07%	77.83%
	320.70%	256.77%		90.49%	74.95%
	339.13%	269.69%		73.87%	61.60%
	334.72%	266.18%		64.66%	54.31%
	302.77%	239.79%		58.20%	48.81%
	330.15%	261.87%		56.43%	47.43%
	302.70%	240.54%		56.28%	47.27%
	307.69%	243.31%		59.00%	49.07%
	310.25%	244.40%		61.01%	50.44%
	311.20%	245.86%		63.97%	53.26%
	306.02%	241.77%		63.19%	52.24%
	294.75%	234.19%		64.17%	52.87%
	284.35%	226.14%		61.57%	50.35%
	287.14%	228.14%		61.32%	50.16%
	351.11%	282.54%		61.49%	49.91%
	213.17%	170.23%		58.75%	47.31%
	181.97%	145.51%		59.22%	47.82%
	157.46%	126.38%			

BIBLIOGRAPHY

1) Aaron, Henry J., Bosworth, Barry B. and Burtless, Gary T. Can America Afford to Grow Old? Washington D.C.: The Brookings Institution, 1989.

2) Kellison, Stephen G. The Theory of Interest. Boston, MA: Richard D Irwin Inc, 1991.

3) Lane, Jeffrey J. The United States Social Security Retirement Benefit: Are We Getting Our Money's Worth? 1995.

4) Myers, Robert J. Social Security. Philadelphia, PA: Pension Resaerch Council and University of Pennsylvania Press, 1993.

5) Myers, Robert J. "Summary of the Provisions of the Old-Age, Survivors, and Disability Insurance System, the Hospital Insurance System, and the Supplementary Medical Insurance System." Baltimore, MD: William M Mercer Inc, 1996.

6) Myers, Robert J. and Schobel, Bruce D. "A Money's-Worth Analysis of Social Security Retirement Benefits." Transactions: Society of Actuaries. Volume 35, 1983.

7) Myers, Robert J. and Schobel, Bruce D. "An Updated Money's-Worth Analysis of Social Security Retirement Benefits." Transactions: Society of Actuaries. Volume 44, 1993.

8) Nash, Gerald D., Pugach, Noel H. and Tomasson, Richard F. Social Security: The First Half-Century. Albuquerque: University of New Mexico Press, 1988.

9) Social Security Administration: Office of Research and Statistics. The 1994 Annual Statistical Supplement to the Social Security Bulletin. Washington D.C.: Social Security Administration, 1994.

10) Social Security Administration: Office of the Actuary. Social Security Area Population Projections: 1991. Baltimore, MD: Social Security Administration, 1992.

11) United States Congress. House Document 104-57. The 1995 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Washington D.C.: Government Printing Office, 1995.